

WHAT IS CLAIMED:

1. A method implemented on a computer of monitoring a supply between at least one supplier and at least one client, in which a client site has at least one project, and each project is associated with dated requirements for products, and maintaining a state of product stock and product purchases, the method comprising:

creating a list of product types required for each project;

producing at least one table for each product type for a sequence of time slices having a chosen time origin, the at least one table having:

a first running total for each time slice from the time origin up to a time slice of interest of a first quantity associated with the dated requirements of the client site; and

a second running total for each time slice from a time origin up to a time slice of interest, of a second quantity associated with the stock and the purchases, wherein the purchases are shifted timewise according to a delay in time; and

searching the at least one table for times at which the second running total is less than the first running total which is indicative of a risk of at least one of a supply shortage and a necessity of initiating supply.

2. The method according to claim 1, further comprising:

periodically shifting the running totals to a new time origin when there is substantial equality between first totaled quantities and second totaled quantities.

3. The method according to claim 1, wherein the creating and the producing are reiterated in view of predetermined events.

4. The method according to claim 3, wherein the predetermined events comprise at least one of modification of a project date by the at least one client, modification of an

availability date by the at least one client, modification of a supply delay by the at least one supplier, modification of product quantities to be provisioned, placing of an order from the at least one client to the at least one supplier, confirmation of an order, reservation of a product from stock, and delivery of a product.

5. The method according to claim 1, wherein the searching further comprises taking an order no later than a date substantially equal to a start-up date of a project, wherein the date is increased by supply availability and reduced by a supply delay.

6. The method according to claim 1, wherein the producing further comprises:  
classifying requirements of the stock and the purchases by product and by effective date;

forming a running total of the requirements for each product and in each time slice in a sequence, from a time origin, to create a first table; and

forming a running total of the stock and deliveries provided for each product, and in each time slice in the sequence, from the time origin to create a second table.

7. A system for monitoring a supply between at least one supplier and at least one client using a computer, the system comprising:

a monitoring module configured to maintain in memory a dated state of requirements for products associated with at least one project and further configured to concurrently maintain in memory a state of stock and purchases of the products;

the monitoring module comprising a control module that includes:

a requirements module configured to produce, for each product type, a first table associated with a sequence of time slices having a chosen time origin, wherein the first table associates with each time slice a first running total of requirements from a time origin up to a time slice of interest;

a resources module configured to produce, for each product type, a second table associated with a sequence of time slices, wherein the second table associates with each time slice a second running total of stock and purchases from the time origin up to the time slice of interest, wherein the purchases are shifted timewise according to a delay in time; and

a comparator that searches for times at which second running totals are less than first running totals which are indicative of a risk of a supply shortage.

8. A system for monitoring a supply between at least one supplier and at least one client, the system comprising:

a monitoring module configured to maintain in memory a dated state of requirements of products associated with one or more projects and configured to maintain in memory, at the same time, a state of the stock and purchases of the products;

the monitoring module comprising:

a running total module that receives, as parameters, a designation of a product type, a mode, and a time origin, the running total module produces, for the designated product type, a table associating successive time slices with a running total of product quantities being defined by the mode, wherein each running total goes from the time origin up to a time slice of interest; and

a control module that calls the running total module with a product type and a mode of requirements on a client site, to which the running total module supplies a first table;

the control module calls the running total module with the same product type, and a mode of stock and deliveries, to which the running total module supplies a second table; and

the control module searches for times at which the running totals in the second table become less in the first table, which are indicative of a risk of supply shortage.

9. The system according to claim 8, wherein the control module is configured to periodically shift the running totals to a new time origin when there is a substantial equality

between the first totaled quantities and the second totaled quantities.

10. The system according to claim 8, wherein the control module is configured to operate in a reiterated manner in view of predetermined events.

11. The system according to claim 10, wherein the predetermined events comprise at least one of modification of a project date by the client, modification of an availability date by the client, modification of a supply delay by the supplier, modification of the product quantities to be provisioned, placing of an order from the client to the supplier, confirmation of an order, reservation of a product from stock, and a delivery of a product.

12. The system according to claim 8, wherein the control module is configured to order a product, no later than a date substantially equal to a start-up date of the project, increased by a supply availability, and reduced by a supply delay.

13. The system according to claim 8, further comprising:  
a state module, configured, on the client side, to classify the requirements of the stock and the purchases, by product and by effective date;  
the state module forms a running total of the requirements for each product in each time slice in a sequence to create the first table; and  
the state module forms a running total of the sum of stock and purchases for each product, and in each time slice in the sequence, to create the second table, the control module operating from the data of the state module.

14. The system according to claim 13, wherein the control module at least partially incorporates the state module.

15. The system according to claim 7, wherein the monitoring module manages a list of product types involved in one or more projects.

16. The system according to claim 7, implemented in object-oriented programming and further comprising:

an object class for the products;

an object class for the stock;

an object class for the purchases; and

an object class for a table element comprising a quantity and a time.

17. The system according to Claim 16, further comprising an object class for each project.

18. A computer readable medium product comprising a program for executing the method according to claim 1.

19. A computer readable medium product comprising a program for implementing functions of the monitoring module in the system according to claim 7.

20. A computer readable medium comprising a program, in object-oriented programming, the program implementing functions of the monitoring module and the object classes according to claim 17.